DrinkerBiddle&Reath

DOCKET FILE COPY ORIGINAL

John P. Bankson, Jr. Of Counsel 202-842-8806 banksojp@dbr.com

1500 K Street N.W. **Suite 1100**

Washington, DC 20005-1209

January 24, 2000

RECEIVED

JAN 2 4 2000

PEDEJAL COMMUNICATIONS OCHAMISSION OFFICE OF THE SECRETARY

www.dbr.com PHILADELPHIA

202-842-8800

202-842-8465 FAX

WASHINGTON

BERWYS

NEW YORK

DrinkerBiddte&Shanley I LL

PRINCETOS HORHAM PARK **BY HAND**

Secretary Federal Communications Commission

The Portals Room TW-A325

445 – 12th Street, S.W.

Washington, DC 20554

In re: CUE Corporation;

Comments in MM Docket No. 99-325

Dear Ms. Salas:

On behalf of Cue Corporation, we are filing the original and four (4) copies of its comments in the Digital Audio Broadcasting rulemaking in the above referenced docket.

Please stamp as received the additional copy of the filing and return it to our courier.

JPB/jb

Enclosure

DC\272740\1

No. of Copies rec'd Ut

RECEIVED

Before the Federal Communications Commission Washington, DC 20554

JAN 2 4 2000

In the Matter of)

Digital Audio Broadcasting) MM Docket No. 99-325

Systems and Their Impact on the)

Terrestrial Radio Broadcast Service)

COMMENTS OF CUE CORPORATION

CUE Corporation (CUE), by its attorneys, files its comments in this rulemaking to consider alternative approaches to introducing Digital Audio Broadcasting (DAB) service in the United States.

- 1. CUE provides wireless data communication over the FM subcarrier facilities of some 600 FM stations throughout the United States and Canada. The services provided include messaging services to 160,000 longhaul truckers and real time traffic information to handheld devices as well as in-vehicle navigation systems such as the Microsoft Auto PC. In addition, custom messaging is provided to a variety of electronic signs and plasma screens used by retailers throughout North America. CUE has been engaged in this business since 1984, and has invested over \$60 million in its network to date. The company has over 100 employees in eight locations throughout the United States.
- 2. CUE recognizes the potential benefits of DAB and the various IBOC systems being proposed. CUE submits, however, that any DAB system chosen must be compatible with the continued operation of existing broadcast stations. In particular, IBOC systems should not interfere with data transmissions on the FM subcarriers of existing stations.
- 3. CUE submits that the Commission should specify clear criteria as to what constitutes interference with subcarrier datacasting and ensure that all the proponents carefully test against those

criteria. This testing should be done, not only with respect to the 57kHz subcarrier (RBDS), but also higher subcarriers such as 92kHz and 76kHz.

- 4. CUE's interests are not unique. A number of businesses in the United States depend on subcarriers. There are also public interests, such as Reading For The Blind, a service carried on the subcarriers of many National Public Radio stations. The Commission should also recognize the public interest of the Department of Transportation concerning the distribution of real time traffic information. The Department of Transportation has funded a number of trials using FM subcarriers to distribute real time traffic information. CUE has participated in many of these trials. I
- 5. To develop the use of high speed subcarrier systems the Consumer Electronics Manufacturers Association (CEMA) recently enacted standards for two such systems, one of which has been funded by the Federal Government.² Both technologies have now been declared critical standards for the purpose of National Transportation Policy.³ One of these standards (DARC) is a worldwide standard.⁴ CUE recently deployed a second network to provide data services in accordance with this standard.
- 6. CUE submits that the continued supply of real time traffic information over FM subcarriers is in the public interest. The Federal Government has taken a major role in promoting that technology and the service is now being deployed on a commercial basis. CUE is currently broadcasting real time traffic information in over 50 markets and expects this to become a widespread public service.

¹ The following FM subcarrier projects have been funded in part by the Department of Transportation: (a) San Francisco to Reno, NV, (Trans Cal) CUE, (67 kHz) March 1997 to March 1998; (b) Houston, CUE (57 kHz, RBDS) 1998; (c) Seattle, Seiko (66.5 kHz); (d) Minneapolis (Triology) DCI (57 kHz) Seiko (66.5 kHz) 1997; (e) Atlanta (AdAS) Scientific Atlanta (72.7 kHz, STIC).

² EIA-794, Data Radio Channel (DARC) System Standard, approved by CEMA on March 2, 1999; EIA-795, Sub-Carrier Traffic Information Channel (STIC) System Standard, approved by CEMA on April 5, 1999.

³ Proposed Critical Standards for TEA-21, Department of Transportation, February 1996

⁴ DARC was developed in Japan by NHK. The European version of DARC (Data Radio Channel) was for a time called SWIFT (System for Wireless Infotainment Forwarding and Teledistribution) but that was abandoned in December 1997 and it is now called DARC worldwide. European Telecommunication Standard PR ETS 300 7S1, November 1996. For a history of DARC, see Scomazzon and Andersson, A High Bit

The CUE service is not restricted to real time traffic information; it also includes real time weather warnings from the National Oceanic and Atmospheric Administration (NOAA), as well as local weather forecasts. This service is currently being designed into a number of car radio and navigation devices.

- 7. Broadcasters also have an interest in ensuring that IBOC systems do not interfere with subcarrier datacasting. CUE leases subcarriers on close to 600 stations in the United States and pays broadcasters over \$1 million per month for this capacity. And, CUE is not the only company leasing subcarrier capacity. A number of the stations that CUE leases are members of National Public Radio (NPR) and the National Association of Religious Broadcasters (NRB). Nonprofit stations are particularly dependent on subcarrier income streams. There is no cost associated with these revenues and they form an important subsidy to nonprofit operations.
- 8. There is an increasing demand for wireless bandwidth to meet market requirements for mobile Internet applications. FM subcarrier technology is unique in that it can economically cover wide areas, an important feature in countries as large as the United States. In addition, new technologies are currently being developed to increase data rates. CUE has announced a technology that will increase the data rate to 64kbs on FM subcarriers and has entered into an agreement with ST Microelectronics to develop the necessary decoder chip. This is a multimillion dollar investment over the last three years.
- 9. CUE will also introduce a new technology that creates a datacasting capability over AM stations at data rates of 16kbs. When the National Radio Systems Committee (NRSC) enacted standards for RBDS datacasting over the 57kHz subcarrier,⁵ sections 6 and 7 were reserved for an AM

Rate Data Broadcasting System Using the Terrestrial FM Radio Network, SWIFT Eureka 1997 project. EBU Technical Review, Summer 1995. DARC networks exist in France, Germany, Holland, Sweden, and Norway.

- 3 -

⁵ Radio Broadcast Data Systems (RBDS) EIA, January 1993.

counterpart.⁶ CUE Corporation has advised the NRSC that it intends to apply for a Standard regarding AM data transmission.

Domission to carefully define technical standards for IBOC systems and in particular define the criteria by which interference to FM and AM subcarriers should be judged. The Commission must ensure that all proponents test against that criteria and provide valid results demonstrating noninterference.

Respectfully submitted,

CUE CORPORATION

By: Jan P. Bankson, Jr.

Robert A. Skitol

Its Attorneys

Drinker Biddle & Reath LLP Suite 1100 1500 K Street, N.W. Washington, D.C. 20005 (202) 842-8800

January 24, 2000

⁶ US Regulations 47 CFR S 73.12, MM Docket No. 830-1322, 49 FR 34011 provide for the unregulated used of subcarrier for AM data broadcasting.

Certificate of Service

I, Josefina Barbarena, hereby certify that, on January 24, 2000, a copy of the foregoing Comments of CUE Corporation was served by hand on the following:

Ms. Judy Boley Federal Communications Commission The Portals Room C-1804 445 - 12th Street, S. W. Washington, D.C. 20554

Ms. Virginia Huth OMB Desk Officer 10236 NEOB 725 - 17th Street, N.W. Washington, D.C. 20503

Josefina Barberena